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Application Number: 09/509,377
Amended claims. Clean version

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Date: March 11, 2005
Enclosure No. 2

I claim:

1. An endoscope with disposable cartridges for the invagination of endoscopic tube, comprising:

- o an endoscopic tube (3) having a distal part with a guided distal end;
- o a disposable cartridge located on the distal part of the endoscopic tube (3) and comprising an invaginator of the endoscopic tube, which invaginator is an eversible tube with an uneverted end (7) joined with the endoscopic tube (3), and an uneverted part of invaginator formed by pleats into a compact hollow cylinder (23), having a gap (25) with the distal part of the endoscopic tube (3).

2. The endoscope according to claim 1, wherein the cylinder (23) of the invaginator comprises narrowings (24) of its external diameter and widenings (24) of its internal diameter.

3. The endoscope according to claim 1, wherein the cartridge comprises a shell (22), which contains the cylinder (23) of the invaginator.

4. The endoscope according to claim 1, wherein the cartridge comprises a preservative (26) of the distal part of the endoscopic tube (3), which preservative is united with a tip (6) of the endoscopic tube (3) and comprises areas (28) for the hermetic fixation to the endoscopic tube (3).

5. The endoscope according to claim 4, wherein the tip (6) comprises a protective glass (33).

6. The endoscope according to claim 5, wherein the tip (6) comprises a channel (32) for inflation of the intestines and prevention of ingress of intestinal contents under the protective glass (33).

7. The endoscope according to any of claims 4 to 6, wherein the endoscopic tube (3) comprises areas (28) for the hermetic fixation of the distal preservative (26) united with the tip (6).

8. The endoscope according to any of claims 1 to 6, wherein the endoscopic tube (3) comprises internal transverse pleats (48) of its external cover.

9. The endoscope according to any of claims 1 to 6, further comprising a mechanism (53) for introduction of the endoscopic tube (3) into the everted part of invaginator, which mechanism comprises a hermetic cavity (60), limited by a cylinder (56), a piston (57), an elastic tube (59) and is connected to fluid pressure.

10. The endoscope according to any of claims 1 to 6, wherein the endoscopic tube (3) comprises distal drives of traction lines (40, 41), bending the distal end of the endoscopic tube (3), which drives comprise executing cylinder-piston units.

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11. The endoscope according to any of claims 1 to 6, wherein the endoscopic tube (3) comprises a biopsy channel, connected to fluid pressure and biopsy forceps (63), which are a flexible hermetic tube with a piston (66) of the biopsy channel on the distal end of said tube.
- 5 12. The endoscope according to claim 11, wherein the biopsy forceps (63) comprise an intensifier (71) of a traction line, which intensifier comprises an executing cylinder-piston unit, located on the distal end of the hermetic tube and of the traction line.

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